



Cornell University
ILR School

Cornell University ILR School
DigitalCommons@ILR

CAHRS Working Paper Series

Center for Advanced Human Resource Studies
(CAHRS)

11-1-2000

Human Resources Strategy: The Era of Our Ways

Scott A. Snell
Pennsylvania State University

Mark A. Shadur
Pennsylvania State University

Patrick M. Wright
Cornell University, pmw6@cornell.edu

Follow this and additional works at: <https://digitalcommons.ilr.cornell.edu/cahrswp>



Part of the [Human Resources Management Commons](#)

Thank you for downloading an article from DigitalCommons@ILR.

Support this valuable resource today!

This Article is brought to you for free and open access by the Center for Advanced Human Resource Studies (CAHRS) at DigitalCommons@ILR. It has been accepted for inclusion in CAHRS Working Paper Series by an authorized administrator of DigitalCommons@ILR. For more information, please contact catherwood-dig@cornell.edu.

If you have a disability and are having trouble accessing information on this website or need materials in an alternate format, contact web-accessibility@cornell.edu for assistance.

Human Resources Strategy: The Era of Our Ways

Abstract

The purpose of this chapter is to discuss some of the main features and trends in human resources (HR) strategy. Inasmuch as people are among the most important resources available to firms, one could argue that HR strategy should be central to any debate about how firms achieve competitive advantage. But this “people are our most important asset” argument is actually fairly hollow in light of the evidence. Far too many articles on HR start with this premise, but the reality is that organizations have historically not rested their fortunes on human resources. The HR function remains among the least influential in most organizations, and competitive strategies have not typically been based on the skills, capabilities, and behaviors of employees. In fact, as Snell, Youndt and Wright (1996:62) noted, in the past executives have typically tried to “take human resources out of the strategy equation—i.e., by substituting capital for labor where possible, and by designing hierarchical organizations that separate those who think from those who actually do the work.”

Keywords

job, research, performance, human resource, management, employee, work, strategy, people, asset, skills

Disciplines

Human Resources Management

Comments

Suggested Citation

Snell, S. A., Shadur, M. A. & Wright, P. M. (2000). *Human resources strategy: The era of our ways* (CAHRS Working Paper #00-17). Ithaca, NY: Cornell University, School of Industrial and Labor Relations, Center for Advanced Human Resource Studies.
<http://digitalcommons.ilr.cornell.edu/cahrswp/95>

WORKING PAPER SERIES

Human Resources Strategy: The Era of Our Ways

Scott A. Snell
Mark A. Shadur
Patrick M. Wright

Working Paper 00 - 17



Human Resources Strategy: The Era of Our Ways

Scott A. Snell

Professor

The Smeal College of Business
Department of Management and Organization
The Pennsylvania State University
University Park, PA 16802

Mark A. Shadur

Doctoral Student

The Smeal College of Business
Department of Management and Organization
The Pennsylvania State University
University Park, PA 16802

Patrick M. Wright

Professor

School of Industrial and Labor Relations
Cornell University
Ithaca, NY 14853-3901
Tel: (607)255-3429
Fax: (607)255-1836
Pmw6@cornell.edu

To appear in M.A. Hitt, E.Freeman, and J.S. Harrison (eds.), *Handbook of Strategic Management*, Blackwell Publishers, 2001.

<http://www.ilr.cornell.edu/cahrs>

This Paper has not undergone formal review or approval of the faculty of the ILR School. It is intended to make results of Center research available to others interested in preliminary form to encourage discussion and suggestions.

Human Resource Strategy: The Era of Our Ways

The purpose of this chapter is to discuss some of the main features and trends in human resources (HR) strategy. Inasmuch as people are among the most important resources available to firms, one could argue that HR strategy should be central to any debate about how firms achieve competitive advantage. But this “people are our most important asset” argument is actually fairly hollow in light of the evidence. Far too many articles on HR start with this premise, but the reality is that organizations have historically not rested their fortunes on human resources. The HR function remains among the least influential in most organizations, and competitive strategies have not typically been based on the skills, capabilities, and behaviors of employees. In fact, as Snell, Youndt and Wright (1996:62) noted, in the past executives have typically tried to “take human resources out of the strategy equation--i.e., by substituting capital for labor where possible, and by designing hierarchical organizations that separate those who think from those who actually do the work.”

So what is different now? Why are people more important today? What is it about HR issues that bring them into a discussion of strategic management? Part of the answer to these questions has to do with shifting priorities and perspectives about competition and firm advantage. As theories of strategic management turn inward toward resource-based and knowledge-based views of the firm, where competitive advantage increasingly resides in a firm's ability to learn, innovate, and change, the human element becomes increasingly important in generating economic value (e.g., Conner & Prahalad, 1996; Itami, 1987). As Quinn (1992: 241) noted, “with rare exceptions, the economic and producing power of the firm lies more in its intellectual and service capabilities than in its hard assets—land, plant and equipment...[V]irtually all public and private enterprises—including most successful corporations—are becoming dominantly repositories and coordinators of intellect.”

Two things happen when we shift perspectives in this way. First, the distinctions between HR strategy and competitive strategy begin to blur. If the competitive potential of a firm rests in its intellectual and service activities, then what people know and how they behave are the *sine qua non* of strategic management. Neither the formation nor implementation of strategies can be separated from how people are managed.

But a second thing that happens when we shift perspectives this way, and it also increases the importance of HR strategy. When people are no longer viewed simply as “hands and feet” in a production function, but as key sources of strategic capability, our focus on organization and governance necessarily changes as well. A common tenet among economists is that, unlike other assets, organizations cannot own their human capital (Becker, 1964). Employees own it themselves, and this dramatically shifts the balance of power in organizations. Further, organizations cannot easily control the exchanges and relationships among employees with those in the external environment (i.e., the Barnard/Simon notion of partial inclusion). Those who conceptualize organizations as knowledge communities (Kogut & Zander, 1992) understand the difficulty of defining and managing the boundaries of organizations in this case. So in addition to managing the knowledge base of an organization, competitiveness depends on managing the relational bases of members of organizations as well. The cultures, attitudes, values and commitments of employees are perhaps more important to success than ever. And these elements differentiate between successful and unsuccessful firms (cf., O'Reilly & Pfeffer, 2000).

Each of these issues at once increases the importance of HR strategy for firm competitiveness, and makes it infinitely more difficult to manage. A key objective of HR strategy is to guide *the process by which organizations develop and deploy human, social, and organizational capital to enhance their competitiveness*. Although we can articulate this objective here at the front end of the chapter, we hope to clarify its meaning more fully as we go through the ideas and concepts that extend throughout the chapter. As we delve more deeply into these issues, we will

summarize several of the key frameworks and research on HR strategy that shape our views. In addition, we hope to provide insights into where the field is likely to go.

To organize our discussion, we break the chapter down into three parts: First, we discuss HR in the context of history by examining the primary competitive challenges faced by firms in the past and show how those influenced our concept of HR. Second, we look at the accepted concepts and models that define HR strategy right now and discuss their connection to the extant literature on strategic management. Finally, we draw inferences from emerging work in the field of strategic management and HRM to identify the dimensions of a paradigm that is beginning to take shape.

THE ERA OF PERSON-JOB FIT

Snow and Snell (1993) noted that although the concept of HR strategy *per se* is fairly new, its underlying logic and principles date back as far as the industrial revolution in the United States. Over time, the concept has evolved to reflect our changing views of strategic management and the arising challenges within HR. As summarized in Figure 1, each phase of this evolution represents a paradigm for research and practice in that they not only influence the way we conceptualize HR, they also orient our priorities for managing people.

At the height of the industrial revolution, in industries such as railroads, autos, and steel, corporate strategies were marked by a focus on volume expansion and vertical integration. The overriding organizational challenge for many firms was maximizing efficiency. In that context, labor came to be viewed as one of the most costly and uncontrollable resources (Chandler, 1962). Organizations and work systems were influenced by the administrative principles of Weber, Fayol, and Taylor that emphasized rational, impersonal management authority. In large and complex organizations of the day, the administrative burden associated with hiring, work design, training, compensation, and employment relations, required that personnel management become its own functional specialty.

Figure 1:
Three Eras of Human Resource Strategy

HR Strategy Era/Paradigm	PERSON-JOB FIT	SYSTEMIC FIT	COMPETITIVE POTENTIAL
Strategic Drivers	<ul style="list-style-type: none"> •Vertical integration •Economies of scale •Efficiency/Productivity 	<ul style="list-style-type: none"> •Globalization •Diversification •TQM/Reengineering 	<ul style="list-style-type: none"> •Knowledge-based competition •Innovation and change •Outsourcing, alliances •Network organizations
Focus of HR Strategy	<ul style="list-style-type: none"> •Administrative •Job-centric •Tasks 	<ul style="list-style-type: none"> •Strategy implementation •System (e.g., team) •Behaviors/roles 	<ul style="list-style-type: none"> •Strategy formation •Competencies •Knowledge (learning) and culture (values)
Prevailing Logic	<ul style="list-style-type: none"> •Analysis (job analysis) •Deductive 	<ul style="list-style-type: none"> •Synthesis (integration) •Deductive 	<ul style="list-style-type: none"> •Generative •Inductive
Key Design Parameters	<ul style="list-style-type: none"> •Division of labor •Work standardization •Employment stability •Efficiency (input/output) •Ease of replacement •Minimum investment 	<ul style="list-style-type: none"> •Internal (horizontal) Fit •External (vertical) Fit •Bundling •High perf. work systems •Configurations •Contingency models 	<ul style="list-style-type: none"> •Strategic value of capital •Uniqueness (firm specific) •Knowledge creation, transfer & integration •Agility (flexibility & fit) •Architectures of multiple HR Systems
Measurement Issues:	<ul style="list-style-type: none"> •Efficiency (cost per hire) •Validity/utility •Turnover, absenteeism •Department size 	<ul style="list-style-type: none"> •Synergy among practices •Rater agreement/reliability •Strategy •Firm performance 	<ul style="list-style-type: none"> •Intellectual capital •Competencies •Balanced scorecard

The Importance of Person-Job Fit

The concept of HR strategy was certainly not explicit at the time, but the *de facto* strategy for managing people focused on *person-job fit*. Traditional employment models were oriented toward employment stability, efficiency, and productivity through division of labor, specialization, and work standardization (Becker, 1976; Capelli, 1995; Hirschhorn, 1984). Care was taken to ensure that jobs were designed so that most people could perform them with a minimum investment of time and/or money and that employees were replaceable should they leave. A preoccupation with analytic methods (as an outgrowth of scientific management) pervaded nearly all HR-related activities. Job analysis in particular—i.e., the breakdown of tasks, duties and responsibilities as well as the accompanying skills, knowledge, and abilities required to perform them—became the foundation for virtually all HR decision-making. Selection testing, time-motion studies, job evaluation and the like were each based on job analysis and they collectively defined an implicit HR strategy of matching individuals to the requirements of jobs.

There are two things notable about this period. First, there is ample evidence indicating that the systematic analysis of jobs, individuals, and performance added logic and precision to what previously had been a fairly informal (if not haphazard) approach to personnel decision-making. Measurement systems were developed to assess the administrative efficiency of the HR function as well as its effectiveness in meeting business goals (e.g., costs per new hire, validity of selection systems, absenteeism, turnover). The rigor and precision evidenced in this approach has been the standard for excellence in HR for many decades. But even more noteworthy in the context of strategy is the consistency among all facets of HR as well as their complementarity to the needs of the business. We will discuss the importance of these two issues in the next section. For now it is important to note that HR activities built around the idea of person-job fit enabled organizations to establish a level of efficiency and stability necessary to meet the competitive requirements of organizations of that time.

The Beginnings of a Paradigm Shift

During this era there were several innovations in management thought and practice—with clear implications for organizational performance—that began to precipitate a paradigm shift in HRM. The human relations and sociotechnical schools, for example, emphasized the “human factors” underlying productivity issues (Roethlisberger & Dickson, 1939; Herzberg, 1957; McGregor, 1960; Trist, 1963). Analysts provided evidence to support the argument that enhancing work conditions could lead to improvements in work outputs. Jobs could be redesigned and enriched, and managers were urged to eschew autocratic leadership styles. These more humanistic approaches to HR policy and practice stood in contrast to the principles and assumptions of the scientific management. The sociotechnical systems approach in particular emphasized the importance of integrating human systems and work systems. This was a marked departure from a purely analytical model of HR strategy.

Even so, HR strategy remained essentially unchanged in light of these newer management models. The focus on person-job fit remained paramount—albeit modified in light of the research—for much of the 20th century. Nevertheless, the tension between philosophies during the 1960s and 1970s made it increasingly apparent that the old model was not a panacea for managers.

THE ERA OF SYSTEMIC FIT

During the 1980s, a new logic pervaded organizations, and its effect was seen in the broader agenda of HRM. As challenges associated with global competition, diversification, total quality management, and the like took center stage, observers such as Mason and Mitroff (1981, p. 15) noted that we needed to deal with organizational problems “in a holistic or synthetic way as well as in an analytic way.” So in addition to subdividing HR into its analytic elements, researchers began to look at how the pieces fit together to establish a more comprehensive and integrated system for managing people. It was at this time that the concept of HR strategy appeared in the

literature (Miles & Snow, 1984; Tichy, Fombrun, and DeVanna, 1982; Walker, 1980). Writers such as Wright and McMahan (1992: 298) described HR strategy as “the *pattern* of planned HR deployments and activities...” in order to capture the ideas of continuity over time as well as consistency across various decisions and actions. Baird and Meshoulam (1988) wrote an influential piece on the principles and parameters that governed HR strategy and noted that two issues—internal and external fit—were paramount for research and practice. The concept of internal fit refers to how the components of HR support and complement each other inside the organization. For example, if the objective is to select high quality candidates, then HR practices regarding development, compensation, and appraisal need to support the retention of these key staff. External fit focuses on how the HR strategies and practices are congruent with the developmental stage and the strategic direction of the firm. In start up firms, HR practices focus on pay, staffing and record keeping with the founder making many decisions. But as the firm grows in complexity, then managers are less able to carry out the expanding HR roles and a personnel or HR department is formed to assist with hiring, training and compensating employees (Baird & Meshoulam, 1988).

The Importance of Internal Fit

The concept of internal fit (also referred to as *horizontal fit*) in HR strategy captured the importance of coherence among sets of practices in order to be mutually reinforcing. At times HR practices such as selection and training can be complementary, compensatory, or mutually reinforcing. At other times, HR practices can be “deadly combinations” that work against one another and send inconsistent or conflicting messages (Boxall & Purcell, 2000). Managing the system in this case, rather than the individual practices may be a key element of HR strategy. Beer, Spector, Lawrence, Mills, and Walton (1984) were among the first to propose a systems-based approach to HR strategy that exemplified the notion of internal fit. Arthur (1994), MacDuffie (1995), and others reinforced this idea by showing how “bundles” of HR practices

tended to occur together in organizations and that the overall logic linking those practices was perhaps more important for understanding HR strategy than the practices themselves.

These studies all reflected a trend toward synergistic views of HR and drew a close parallel with the configurational approaches to organization strategy (Doty & Glick, 1994; Lado & Wilson, 1994). In order to identify and conceptualize HR strategies as meaningful ideal types, researchers developed—and borrowed—terminology such as behavior and output control (Snell, 1992), commitment-based HR (Arthur, 1994; MacDuffie, 1995), high performance work systems (Huselid, 1994), human capital enhancing systems (Youndt, Snell, Dean, & Lepak, 1996), and the transformed workplace (Kochan, Katz & McKersie, 1996) to describe the overall pattern of employment practices. The important point is that rather than looking at the mechanics of individual HR practices in isolation, these frameworks reoriented our view toward the overarching employment relationships that organizations established with employees (cf., Baron & Kreps, 1999; Delery and Doty, 1996; Dyer & Holder, 1988; Osterman, 1987; Schuler & Jackson, 1987).

The Importance of External Fit

In concert with the notion of internal fit, the idea of *external fit* (also referred to as *vertical fit*) captured the alignment of HR practices with the needs of the business. By acknowledging the various postures that firms establish *vis a vis* their environments, researchers began addressing the possibility of contingency perspectives in HR strategy. Much of the research on HR strategies during this period focused on matching HR practices with various generic business strategies (e.g., Burton & O'Reilly, 2000; Delery & Doty, 1996; Jackson, Schuler & Rivero, 1989; Olian & Rynes, 1984; Wright & Snell, 1991). Miles and Snow (1984), in particular, are notable in that they were among the first to develop a typology of competitive strategies and then extended this model to include HR strategies that were appropriate under each condition.

It is interesting to note that while a few studies have supported a contingency perspective (cf., Delery & Doty, 1996; Gomez-Mejia, 1992; Wright, Smart & McMahan, 1995; Youndt, Snell, Dean & Lepak, 1996) there is still compelling evidence that a universal approach (particularly one based on creating high commitment work systems) is equally if not more strongly related to firm performance (cf., Huselid, 1994; McDuffie, 1995). So while the idea of internal fit has become well established in the HR strategy literature, the debate about “best fit” versus “best practice” is ongoing (Boxall & Purcell, 2000).

Part of the controversy surrounding the issues of fit and strategic contingencies centers on debates about measurement (e.g. Boudreau & Ramstad, 1997, Ulrich, 1997). For instance, it is yet unclear whether firms should operationalize internal fit using additive scaling or attempt to capture its synergistic effects via multiplicative interactions (Huselid, Jackson & Schuler, 1997, Delery & Doty, 1996). Extending beyond this, there are also concerns regarding the appropriate measurement of business strategy and firm performance (Rogers & Wright, 1998). Although these issues pertain more to debates among researchers, they also have implications for managers who accept the underlying logic of strategic fit and need to develop metrics to assure its implementation. As researchers have expanded their views of HR strategy, they have also wrestled with the appropriate ways to operationalize the broader set of constructs (Guest, 1999).

Overall, this era of HR strategy helped us develop a much broader understanding of how administrative systems underlie strategy implementation, and in the process transformed the way we looked at the design of HR systems. Instead of focusing only on the technical characteristics of a particular HR practice, we began to look at how sets of practices worked in concert to elicit, reinforce, and support patterns of behavior that benefit the firm. As researchers expanded their view of HR strategy, they also developed a more integrative perspective of how policies and practices can and do work together to support the firm’s strategic intentions. In the

process, HR took its place along side other organizational systems such as structure, culture and technology.

The proliferation of frameworks during this era to link HR systems and generic business strategies reflected the field's focus on concepts and logic, perhaps at the expense of empirical progress. But these efforts were important in several respects. Not only did they provide a platform for discussion and debate about ideas such as contingency, synergy, and best practice in HR, they became the means by which we could understand and communicate the logic of business strategy that was, until that time, largely foreign to many of us. While typologies such as Miles and Snow's (1978) or Porter's (1980) have their critics, their prominence during the 1980s epitomized the field's interest in logical connections among resources, and alignment of firms with the broader environment.

Considering the dramatic transitions in HR occurring during this era, terminology was destined to change as well. The word "personnel" evolved into "human resources," not only reflecting a reorientation away from viewing people as costs to viewing them as assets, but also indicating that both executives and academics had redefined the field to be something substantively different from what it had been. Guest (1987) argued that to be a meaningful transition from traditional personnel management, HRM needed to embrace policies to facilitate integration, commitment and flexibility. Writers such as Yeung, Brockbank and Ulrich (1994) described how the roles and responsibilities of the HR function were changing and the competencies needed to execute those new roles. In addition to the technical and functional competencies that had been a mainstay in HR, staff specialists were being asked to step into the roles of business partners and change agents (Dyer, 1983). Likewise, line managers were assuming more responsibility for HR-related matters and working in close coordination with the HR staffs.

The Beginnings of a Paradigm Shift

As with the era of person-job fit, there were notable exceptions to the HR strategy paradigm based on systemic fit that began to loosen its foundation. For instance, much of the research during this period cast HR in the role of strategy implementation rather than strategy formation. As one of the last vestiges of the hierarchical model of organizations, strategy (at the top) was taken as given, and HR was seen as adapting itself to the resulting needs and requirements. While researchers such as Dyer (1983) and Buller (1988) found occasional instances where business planning and HR planning had reciprocal relationships, most often there was a one-way linkage from business strategy to HR. As Lengnick-Hall and Lengnick-Hall (1988) noted, "Rarely are human resources seen as a strategic capacity from which competitive choices should be derived." This severely limits the potential contribution of HR to firm competitiveness. In this context, HR is seen as an enabling factor at best, and a limiting factor at worst.

But by the end of the 1900s, it was clear that much is changing today. As traditional bases of competitive advantage, such as protected markets, access to capital, and the like are eroding, and as resources are more accessible to a wider range of firms, there are fewer unique ways to succeed except through people (Pfeffer, 1994; Pucik, 1988; Schuler & MacMillan, 1984). In high velocity environments that characterize business today, HR is now being viewed more as a catalyst for strategic capability. That is, HR is viewed as propelling strategy rather than the other way around.

THE ERA OF COMPETITIVE POTENTIAL

Just as the strategic priorities of the 1980s changed the way we looked at HR back then, competitive challenges in today's organizations are reorienting HR strategy again. The new competitive equation places a premium on knowledge-based assets and the processes that underlie learning and innovation (cf., Leonard-Barton, 1992). In some ways, this evolving

paradigm stands in contrast to the previous model(s) of HR strategy. Rather than viewing HR as a result of strategic planning, strategic planning is now increasingly built on the capabilities and potential available through a firm's human resources.

Employee skills, knowledge, and abilities are among the most distinctive and renewable resources upon which a company can draw. As the pace of change places a premium on innovation and learning, strategy formation increasingly resides in “people-embodied know-how.” Because people can learn and adapt, they potentially are a self-renewing resource (Davenport & Prusak, 1998; Nonaka & Takeuchi, 1995). Further, in combination with broader organizational systems and technologies, people form the basis of a firm's core competencies (Prahalad & Hamel, 1990).

From this standpoint, HR strategy is seen as cultivating the competencies, cultures, and composition of workers that underlie a firm's competitive potential. There are three elements to the current paradigm shift in HR strategy: (1) knowledge-based perspectives complement behavioral perspectives of HR, (2) the concept of agility is used to reconcile simultaneous needs for flexibility and strategic fit, and (3) architectural models provide a more elaborate view of employment and HR. Each of these is discussed below.

Incorporating Knowledge-Based Perspectives

Several trends in strategic management—such as shift toward resource-based and knowledge-based views of the firm, a focus on intangible assets, intellectual capital, knowledge management, and the like—have placed HR-related issues at center stage in organizations (cf., Barney, 1991; Davenport & Prusak, 1998; Kogut & Zander, 1992; Nonaka and Takeuchi, 1995). And these theories have fundamentally altered the way we look at HR strategy.

In the past, our perspective has been focused on the requisite behaviors required to implement a given strategy. Porter's (1980) generic strategies, for example, had implications for HR strategy so that firms with low cost strategies were seen as needing efficient behaviors,

which implied an HR focus on routinized job design, incentives based on output targets, relatively low levels of training. Differentiation strategies emphasized creativity and innovation, which suggested HR policies to attract and retain highly skilled employees, high employee participation, and extensive training (Schuler & Jackson, 1987). But these earlier strategic models did not explicitly incorporate an HR dimension within them. There were implications for HRM but human resources were not seen as a central contributor to strategy implementation. A break with this approach came from strategy analysts such as Prahalad and Hamel (1990) who argued that core competencies are derived from the collective learning with the corporation and that a central focus of top management must be to provide a strategic architecture to enhance competence building. Human resources were thus positioned as a pivotal component of competitive advantage. One interesting consequence of incorporating knowledge-based perspectives into strategic management, and the consequent elevation of HR strategy, was that the earlier exaggerated separation of strategy formulation and implementation was reduced. When knowledge assets are seen as a key success factor, then strategy making more closely draws upon internal competencies and capabilities for executing strategy (Hamel & Prahalad, 1994).

In retrospect, the omission of HR is to an extent understandable. Because HR has its roots in psychology and other social sciences, its focus has been on individual and/or group behavior. Given this heritage, it is not surprising that in the past we have made inferences about the kinds of behaviors needed from employees to execute a given strategy. However, researchers such as Barney (1991), Ulrich (1991), Snell and Dean (1992) and others have argued that competitive advantage rests in something that is more durable and fundamental than behaviors alone. Wright and Snell (1991) noted that while HR strategies were important for controlling and coordinating behavior, they also played a pivotal role in developing and coordinating competencies. Researchers began to blend a behavioral perspective of HR strategy with one based on resource-based views and, later, knowledge based views of the firm.

Snell, Youndt, & Wright (1996) borrowed from Barney (1991) to discuss how employee skills and knowledge—that is, their *human capital*—can be valuable, rare, inimitable, and nonsubstitutable. The concept of human capital is powerful in that it blends traditional aspects of personnel management (e.g., employee skills, knowledge, abilities) with economic principles of capital accumulation, investment, deployment and value creation that underlie much of strategic management (cf., Dierickx & Cool, 1989).

Related to this, researchers in the areas of knowledge management and organizational learning also recognize that people are often the key to sustainable competitive advantage (Davenport & Prusak, 1998; Nonaka and Takeuchi, 1995). Because the process of creating, sharing, and integrating knowledge tends to be tacit, path dependent, and socially complex, it tends to be difficult to imitate and nontransferable to different contexts (cf., Dierickx & Cool, 1989; Peteraf, 1993). These relational elements of learning and competitive advantage extend beyond human capital and highlight the importance of *social capital* (Coleman, 1988; Edvinsson & Malone, 1997). While human capital represents the economic value of individual knowledge, social capital represents the value of “resources embedded within, available through, and derived from the network of relationships” (Nahapit & Ghoshal, 1998: 243).

In the context of social capital and learning, HR strategy transcends the development of knowledge, skills, and behaviors alone to also incorporate the development of relationships and exchanges inside and outside the organization. The boundaries between organizations were becoming increasingly blurred and Harrison and St. John (1996) explained that nontraditional management techniques that were being used within the firm could also be applied to relationships outside the firm. Instead of seeking relationships based on control and monitoring, more emphasis is placed on cooperation with stakeholders inside and outside the firm. When we consider that these relationships are based on norms of trust and reciprocity, we expand the purview of HR strategy further to include the values and principles that guide relational action. Leanna and VanBuren (1999), for example, laid out a model of social capital that explains how

HR practices can elevate the levels of trust and associability (willingness and ability to interact) to encourage widespread cooperation and sharing of knowledge.

It may also be that emerging concepts of moral and/or ethical capital are likely to take their place within the domain of HR strategy as well. As O'Reilly and Pfeffer (2000) put it, when engaged with a common purpose and values, people energize organizations to create “hidden value” that is perhaps most difficult to imitate or duplicate in other firms. They represent a source of cultural vitality in organizations that mobilizes extraordinary performance.

Finally, in addition to knowledge contained in individuals and social networks, much of what an organization knows is contained in its systems and processes. As Daft and Weick (1984: 284) noted, “individuals come and go, but organizations preserve knowledge over time.” Becker, Huselid, Pickus and Spratt (1997) followed Wright and McMahan (1992) in noting that HR practices, processes and systems institutionalize a firm's know-how about managing people and can therefore represent an important economic asset. Competitors can often acquire hardware and software similar to that of leading firms, but it is much more difficult to replicate the underlying capability and collective knowledge embedded in organizational practices, routines, and systems (Day, 1997, Oliveira, 1999). As a form of *organizational capital* the overall configuration of these systems—when intertwined in idiosyncratic ways—can be nearly impossible to imitate or duplicate in other firms.

The combination of human, social, and organizational capital represents the foundation of core competencies and the outcome of processes that facilitate knowledge management. Although a good deal of research needs to be done, it is clear that our orientation to HR strategy is moving away from a strictly behavioral focus to one that incorporates ideas about managing intellectual capital.

Part of the challenge in making this transition to a knowledge-based paradigm is the development of metrics that capture essential ideas and principles of intellectual capital. Since the mid 1990s, there has been increasing recognition that traditional measures of firm assets

and performance (based substantially on financial indicators) are incomplete. To address this, Sveiby (1997) developed an 'intangible assets monitor' that captured various aspects of intellectual capital including employee competence (e.g. efficiency, growth and value adding role of professionals), internal structure (e.g. intellectual property rights, internal organization, support staff), and external structure (e.g. relationships with customers and suppliers). Similarly, in the broader area of strategic management, Kaplan and Norton's (1996) 'balanced scorecard' tied four sets of metrics (financial, customer, internal business processes and learning) to broader assessments of market value and organizational effectiveness. Initiatives such as these are instrumental in establishing concrete methods for assessing intangible elements of firm competitiveness.

Reconciling Fit and Flexibility

A second major thrust in HR strategy today relates to reconciling the notions of fit and flexibility (Milliman, Von Glinow, & Nathan, 1991). Lengnick-Hall and Lengnick-Hall (1988), for example, pointed out that where adaptation and flexibility are paramount, tight fit between HR and strategy might be ill advised. "Fit can be counterproductive from a competitive perspective because it may inhibit innovativeness and constrain the firm's repertoire of skills" (1988: 457). Schneider (1987) raised a similar concern in his framework of organizational attraction-selection-attrition (ASA) cycles. If organizations attract and retain an increasingly homogeneous group of members, particularly with regard to their values and personalities, it can result in organizations that have unique structures, processes, and cultures. In the near term, this can be quite beneficial with a view toward strategic fit and inimitability. However, over time homogeneity may constrain the variety of interests and perspectives needed to generate new ideas. A tightly fitted ASA cycle may thereby work against the forces of change.

HR systems themselves (not the people, but the practices) may inhibit flexibility as well. Snell and Dean (1994) noted that, once in place, administrative systems such as HR practices

tend to be notoriously intractable. Because they are held in place by numerous forces, such as written records, organizational traditions, corporate regulations, and employee expectations, they represent one of the major forces of organizational inertia that prevent change.

To address these issues, Wright and Snell (1999) developed a framework that balances the needs of fit and flexibility. Rather than viewing fit and flexibility as opposite ends of a continuum, these authors saw the two as complementary dimensions (cf., Milliman, Von Glinow & Nathan, 1991). Fit is conceptualized as a static element seen at a point in time, whereas flexibility is viewed as the capacity for change and adaptation over time. This distinction raises the possibility that HR systems as well as work force characteristics can be both flexible and fitted to the needs of the organization. Building on work by Sanchez (1995), Wright and Snell focused on two key elements: resource flexibility and coordination flexibility. *Resource flexibility* refers to the extent to which a resource can be applied to a larger range of alternative uses. For example, some HR practices are more flexible than others (e.g., Management by objectives versus behaviorally-based appraisals) and can be used in multiple contexts. Likewise, some employees have more flexible skills sets (e.g., broader skill sets versus specialists) and behavioral repertoires (e.g., contextually altered versus tightly scripted routines) than others and can adapt more readily to new situations. *Coordination flexibility* extends these ideas by characterizing a firm's ability to reconfigure, reallocate, and redeploy the chain of resources. Similar terms such as organizational capability and strategic capability have been used in the literature to describe a firm's potential to simultaneously conceive and implement a wide range of strategies with minimal response time (cf., Lenz, 1980; Prahalad, 1983).

Dyer and Shafer (1999) provide perhaps the most comprehensive treatment of these ideas about flexibility in the context of HR strategy. Building on extant literatures in innovation and change, they view organizational adaptation not as a one-time or even periodic event, but as a continuous process termed *organizational agility* (cf., Brown & Eisenhardt, 1997). This is a subtle but important distinction and alters our viewpoint from a "change in strategy" to a "strategy

of change.” In agile organizations, the role of HR strategy is multifaceted. On the one hand, it is designed to forge a stable core of shared values, vision, and common performance metrics. But around this core, HR strategy plays an instrumental role in developing competencies and behaviors of an agile workforce that embraces change and learning. Supporting this, HR strategy also comprises an infrastructure that can be reconfigured rapidly to enable change and adaptation (e.g., through fluid assignments, empowerment).

The net result of these initiatives is an HR strategy that supports stability as well as change. To paraphrase Brown and Eisenhardt (1997), HR strategies in agile organizations combine limited structure (e.g., priorities, responsibilities) with extensive interaction and freedom to improvise. This combination is neither so rigid as to control the process nor so chaotic that the process falls apart. Successful managers explore the future by experimenting with a wide variety of low cost probes. They neither rely on a single plan for the future nor are they completely reactive. Through rhythmic transition processes from present to future ones, they create a relentless pace of change.

Elaborating on the HR Architecture

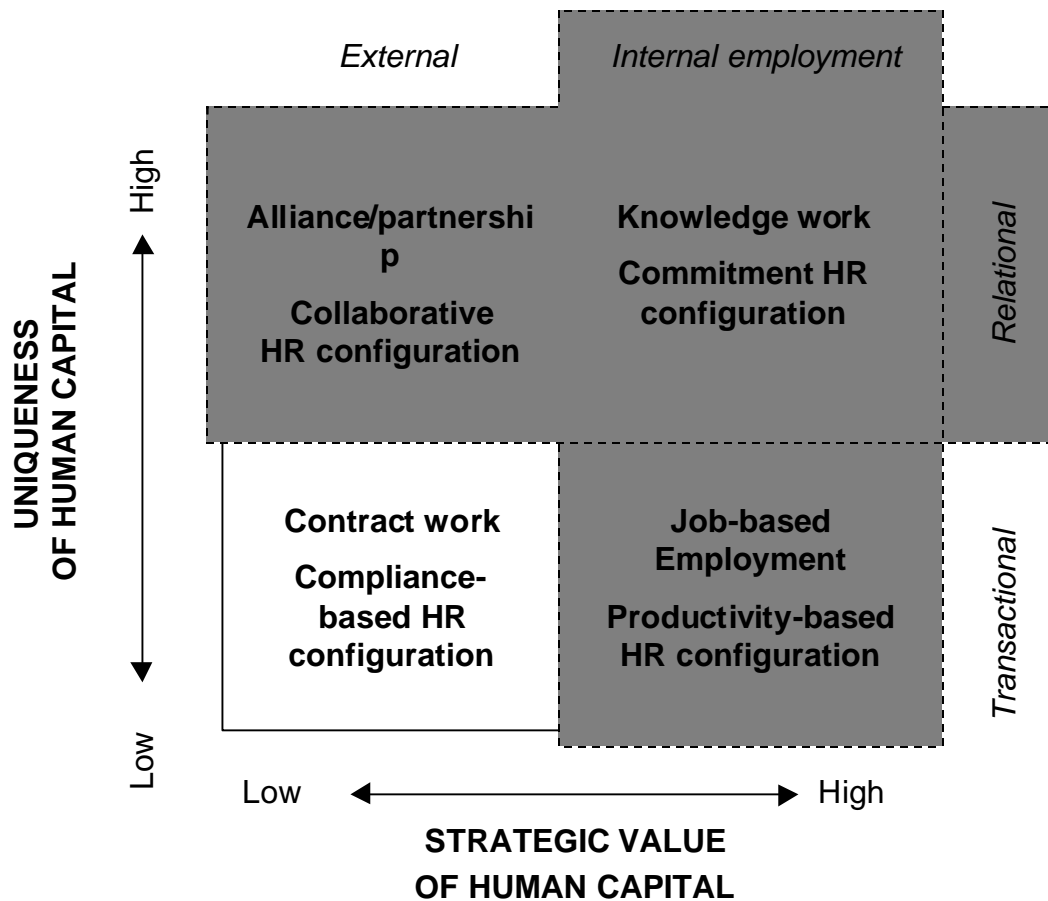
The third major thrust in HR strategy today is a focus on more complete architectures used to manage people. Recently, Lepak and Snell (1999) argued that in our previous efforts to view HR strategy more broadly, we perhaps cast it too simplistically. HR strategy researchers have tended to aggregate—both conceptually and empirically—all employees into one comprehensive “workforce” that is studied as though it were managed with a single (or at least dominant) HR configuration. While aggregation such as this adds parsimony, and helps us highlight organization-level phenomena, it is an analytical compromise that treats variation *within* firms as noise. Interestingly, earlier work in organizational theory on differentiation alerted us to notable differences between, for example, production, sales and research departments with respect to organizational structure and interpersonal relationships (Lawrence

& Lorsch, 1967). But, with some notable exceptions (e.g. Baron et al, 1986, Osterman, 1987), a disaggregated analysis of the workforce, did not occupy center stage in HR research.

An architectural perspective of HR begins with the assumption that different employees contribute in different ways to organizations. As a consequence, they are likely to be managed in different ways as well. As noted by Mangum, Mayall, and Nelson (1985: 599), “Many employers carefully select a core group of employees, invest in them, and take elaborate measures to reduce their turnover and maintain their attachment to the firm. Many of these same employers, however, also maintain a peripheral group of employees from whom they prefer to remain relatively detached, even at the cost of high turnover, and to whom they make few commitments.”

Lepak and Snell’s architectural framework begins with a focus on the strategic value and uniqueness (firm-specificity) of human capital. As shown in Figure 2, by juxtaposing these two dimensions, the model lays out four different cells in a matrix. Corresponding to these human capital differences, each cell differs in terms of the employment modes, psychological contracts, and HR configurations used to manage employees. The four configurations can be referred to as commitment-based, job-based, compliance-based, and collaborative (see Figure 2).

Figure 2:
Human Capital, Employment Modes, Relationships, and HR Configurations



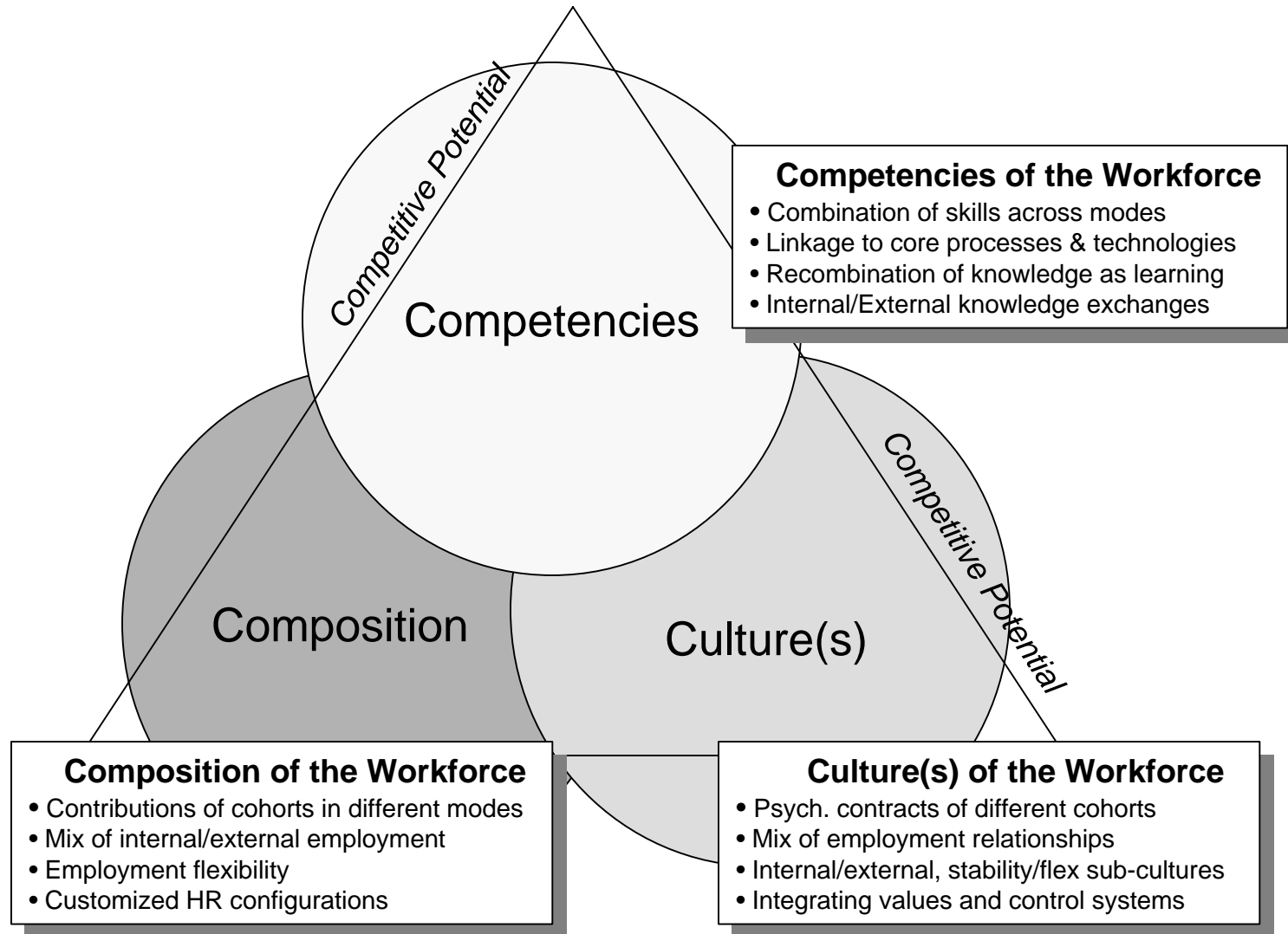
Adapted from Lepak & Snell (1999)

This architectural perspective integrates a number of research streams to inform HR strategy. Baron, Davis-Blake, and Bielby (1986), for example, found that multiple internal labor markets (ILMs) exist within firms in response to differences in firm-specific skills, occupational differentiation, technology, and the like. Similarly, Osterman (1987) argued that industrial, salaried, craft, and secondary employment subsystems tend to co-exist within firms. More recently, researchers such as Matusik and Hill (1998), Rousseau (1995), Tsui, Pearce, Porter, and Hite (1995) have articulated a variety of employment relationships that simultaneously exist within firms ranging from long-term relationships with core employees to short-term exchanges with external guest workers and other forms of contract labor.

The Beginnings of a Paradigm

It is a bit too soon to determine exactly how we might portray this era of HR strategy. What seems to be emerging is a more complex view that parallels the evolving nature of strategic management. As firms reorient themselves toward the development and deployment of core competencies while simultaneously entering into alliances with outside partners, the infrastructure of organizations and human resource management is at once more differentiated and purposefully integrated. Figure 3 shows three main dimensions of HR strategy in this context: (a) the composition of the workforce, (b) the cultures of the workforce, as well as (c) the competencies of the workforce.

Figure 3:
Dimensions of HR Strategy in the Era of Competitive Potential



Composition of the workforce. One of the primary dimensions of HR strategy has always been workforce composition. Getting the right number and kinds of people in the right places at the right times doing things that benefit both them as individuals and the firm as a whole is an arduous and multifaceted process. Blending the facets of traditional manpower planning with strategic analysis is more difficult in today's environments of change and workforce fragmentation. The process hinges on an understanding of how various cohorts of individuals contribute to the firm.

At the core of workforce composition, HR strategy focuses on the development of a cadre of knowledge workers that are central to a firm's advantage. These "gold collar workers" (Huey, 1998) have substantial autonomy to pursue initiatives upon which the firm is likely to build its future strategies. At the same time, HR strategy is oriented toward preserving existing relationships with employees in more traditional work arrangements as well as making more use of a contingent workforce that includes part-timers, temporary workers, contractors and long-term partners.

In this context, the architectural perspective of HR strategy focuses on managing the complexities of employment in a network organization. Each cohort of workers is likely to vary in several ways: the types of human capital they bring, the expectations placed upon them by the firm, the investments made in their development, and the like. Each of these differences translates into a different configuration of HR practices.

But HR strategy necessarily moves beyond merely management of these pieces to the management of the whole. HR strategy must incorporate decisions about the balance and mix of different types of human capital within this matrix as well. Today, decisions about what work should be kept internally, what should be outsourced, with whom to partner, the nature, scope, and duration of those partnerships are as central to HR strategy as they are to business strategy in general. Because some of the most important work may be done externally, the myriad combinations create real questions about the boundaries of the firm and the nature of

exchange (Matusik & Hill, 1999). Too often, decisions about internalization and externalization rest solely on cost considerations, but a more strategic view combines HR-related concerns with strategic concerns of competency development and exploitation.

Future research might focus more on decisions regarding the type of work that should be kept internal to a firm, what work should be externalized, and how the integration of those activities might be best achieved. Do firms do better when they hold all their assets internally, or is there an optimal mix of internal and external arrangements? If so, why do some firms bring a particular form of expertise into the organization, while others leave it outside? Is flexibility (through externalized employment) achieved at the expense of efficiency and competency development? Each of these research issues becomes important in an environment that explicitly views employment composition as an issue of portfolio management.

Culture(s) of the workforce. Hand in hand with issues of workforce composition, an architectural view of HR strategy also incorporates issues of culture and control. We have known (and sometimes ignored the fact) that individuals in different cohorts have different allegiances to firms, different values, and different attachments to their work (cf., Lawrence & Lorsch, 1967). Subcultures are embedded in the psychological contracts established with different cohorts and manifested in their various control systems and HR practices (Osterman, 1987).

For example, the work of individuals with unique and specialized human capital is likely to be difficult to specify or monitor (Conner & Prahalad, 1996). As a consequence control systems are likely to give discretion to these individuals and emphasize achievement of results (Kerr, 1985; Snell, 1992). Their employment relationships are likely to reflect a more relational connection that more fully includes them in the strategic direction of the firm (Rousseau, 1995; Tsui et al., 1995). This stands in contrast to the work of traditional job-based employees whose work tends to reflect the principles of behavior control and transactional employment. The HR

practices and systems establish and reinforce different employment relationships with each group.

Emerging from these contrasting employment relationships, Rose (1988) noted that organizations are likely to be comprised of various subcultures. In contrast to the view that organization can or should be characterized by one culture, it seems that combinations may be necessary from a competitive standpoint. As Schein (1990) pointed out, culture is developed as an organization learns to cope with the dual problems of external adaptation and internal integration. Dennison and Mishra (1995) found that cultures overly oriented toward consistency and commitment tended to focus too much on internal adjustment to the exclusion of external flexibility. They pointed out the advantages of cultures that could mix internal and external perspectives with those that balance flexibility as well as stability. From an architectural perspective, HR strategy focuses our attention toward the creation, maintenance, coordination—and then integration—of these different subcultures.

The process of integrating or aggregating subcultures into a collective is an extraordinarily complicated endeavor of course. And we will not try to address the entire issue here. But in addition to creating a core set of values that unites a workforce and guides collective action, an architectural view of HR strategy would also draw our attention to the relational interactions among various subcultures in a firm. No longer is this simply a white collar/blue collar distinction; relational exchanges among different cohorts preserve the complexity and richness of perspectives within organizations while achieving a common strategic posture.

When we consider knowledge workers from a cultural perspective then several research issues emerge. Can different subcultures be detected among different cohorts, such as core knowledge workers and those in more traditional job-based employment? What dimensions should be used for assessing differences that might exist between knowledge workers and other subcultures? What are the HR implications for managing knowledge workers if subcultural

differences exist? Do knowledge workers have greater affinity with other knowledge workers outside their organization than with other subcultures within their firm?

Competencies of the workforce. As we combine issues of composition and culture, we begin to get a better perspective of the fabric underlying a firm's competencies. An architectural view of HR strategy addresses the integration and combination of talents, from different cohorts who have different attachments to the firm and different attachments with each other. Particularly in the context of core competencies, if we recognize that competitive potential does not reside in any one set of individuals, then strategy development requires explicit attention to the aggregation of skills across modes to create differentiated value. For example, if we identify the key business processes and technologies that establish the infrastructure of a core competency, then we can identify the individuals and teams who "plug into" those processes, thereby mapping the talent base of a firm's competency. In this context, a firm's core competency could be comprised not just from the skills of knowledge workers, but from some traditional employees, as well as some contract workers and strategic partners. It's their combination that is most essential for planning.

Too often HR researchers are quick to advocate placing all employees into the "knowledge worker" category (high value, high uniqueness) with one set of "best practice" tools for managing commitment and performance. However, this approach would be prohibitive from an investment standpoint, unproductive from an efficiency standpoint, and unlikely from an employment standpoint (many workers would not choose this option). Instead an architectural view of HR strategy focuses on establishing relationships across different cohorts to engender knowledge exchange, combination, and reconfiguration. Efforts to do so bring together HRM and strategic management as never before.

Initial efforts to map individuals to a given competency, identify their contributions, and articulate the nature of their exchanges with others are important first steps. However, it is important to note that as competencies develop, decay, and transform, the contribution of

different individuals is likely to vary over time. Just as individuals adapt as they learn, the *combination* of individuals that contribute to a competency is likely to transform over time. This transformation reflects (or defines) organizational learning. The result is a renewed and/or transformed competency. Our earlier discussion of resource flexibility and allocation flexibility takes on a new importance in this context (Wright & Snell, 1999). As organizations establish new relationships both internally and externally—and combine the knowledge sets of contributing parties—they increase their chances of being able to develop a more flexible workforce with dynamic capabilities. The flexibility is derived not just from the combinations that can be reassembled and recombined over time, but through the rapid learning that occurs through knowledge exchange (Brown & Eisenhardt, 1997; Cohen & Leventhal, 1990; Matusik & Hill, 1999; Teece, Pisano & Shuen, 1997).

HR researchers can therefore address important questions to illuminate how firms use competencies more effectively. For example, how do we adequately distinguish which skill groups contribute to a firm's core competencies? How do those individuals combine their talents in a way that is both value creating and inimitable? How can we best leverage those competencies throughout the organization—in effect transferring and integrating the knowledge to other workers? How do we ensure that knowledge outside the firm is acquired and assimilated, transferred and transformed, in order to create competitive potential that is renewable over time? If we can begin to answer some of these questions, HR researchers will contribute substantially to the development of theory and practice in strategic management.

CONCLUSION

One of the chief purposes in writing this chapter was to summarize the key trends in HR strategy that have defined the field. We identified three eras in research and practice that were defined by particular sets of assumptions and perspectives about managing people for competitive advantage. Each of these eras of HR strategy had their parallels in strategic management.

During the era of person-job fit, HR activities were focused on establishing the levels of efficiency and employment stability required in firms pursuing strategies of expansion and vertical integration. During the era of systemic fit, HR strategies focused on the internal consistency among HR bundles and then linked them vertically with the requirements of strategy. Instead of focusing on the individual practices in isolation, this HR strategy paradigm placed a premium on developing synergies inherent in the overall system. Today's emerging HR paradigm reflects an era of strategic management that emphasizes knowledge-based competition. HR systems are being designed to develop and reinforce ideas of intellectual capital and knowledge management that propel strategy formation. Just as firms are establishing networks of alliances and partners to complement their core competencies, the architectural view of HR strategy addresses the combinations of employment modes and relationships that support knowledge management and organizational agility.

Beyond describing these elements of each HR strategy paradigm, another important purpose for this chapter was to show how the fields of HR and strategic management are converging. This trend can perhaps best be seen by reflecting on the origins of each field, their evolution over time, and the challenges that set their agendas today. Early strategy thinkers were strongly influenced by I/O economics (e.g., Porter, 1980). However, most recent conceptualizations, in particular the resource-based view of the firm (Wernerfelt, 1984), have refocused on internal aspects of the firm. This evolution has put people issues at the forefront of strategic management models, specifically focusing on managing intellectual capital as a

valuable and rare firm resource as well as understanding how firms can develop dynamic capabilities.

On the other hand, early strategic HRM models were based in psychology (e.g., Schuler & MacMillan, 1984) but have consistently moved toward more macro approaches that integrate organization theory and economics into our understanding of HR strategy (Wright and McMahan, 1992). Most recently, emphases on exploring HR strategy as a means of managing the intellectual capital of a firm (Lepak & Snell, 1999) and managing the fit/flexibility dilemma have emerged as central issues in this literature.

As these two fields merge, we believe there are several ways that researchers can establish mutual gains. For example, strategy's emphasis on organization-wide (macro) issues provides context and perspective for HR researchers while HR's orientation toward more specific (micro) details adds precision to strategic analysis and practice. Related to this, theories of organization, competition, cooperation, and the like are important to HR researchers, particularly in light of criticisms that HR has traditionally been "theory-free." On the other hand, HR's focus on actual practices helps translate strategy theory into more firmly rooted tools and techniques that managers actually use. Prahalad and Hamel (1990), for example, noted that the ideas and concepts surrounding core competency development leaves off where HRM begins. Identifying exactly "how" firms develop and manage core competencies requires more elaboration of the staffing, training, compensation and performance management systems used in firms.

It is likely that research will continue to explore and specify in more detail the actual relationships between strategy and human resources and determine if the trend toward convergence and complementarity will persist. One area that is still clouded is the question of causality in the relationship between strategy formulation and implementation. Earlier research presupposed that strategy was formed largely on the basis of external analysis and internal management focused on implementation. However, an intellectual capital and resource-based

view of the firm blurred this distinction. The internal capabilities were seen to give rise to strategic options and provide valuable and difficult to imitate advantages. So the focus for many researchers has shifted to inside the firm (Barney, 1995). But it seems likely that a complex inter-relation of external and internal factors is at work here and research is needed to explore how these factors interact. Further analysis of the interaction of internal and external factors will also help to inform us on how firms can successfully manage in turbulent environments. Complexity theorists (e.g. Brown & Eisenhardt, 1998) have begun this analysis and have assisted in identifying how firms cope with continuous change using strategic flexibility, co-adaptation, and experimentation. The pace and extent of change in the environment accentuates the focus on internal dynamic capabilities. HR research will need to focus on how firms create, transfer and integrate knowledge in order to cope with rapid change.

In summary, we see a continuing convergence between the business strategy and HR strategy literatures that we believe will benefit both fields. This convergence should result in a deeper and broader understanding of how firms can effectively manage all of their resources to gain competitive advantage.

REFERENCES

- Argyris, C. & Schon, D.A. 1978. *Organizational learning: A theory of action perspective*. Reading, MA: Addison-Wesley.
- Arthur, J.B. 1992. The link between business strategy and industrial relations systems in American steel minimills. *Industrial and Labor Relations Review*, 45, 488-506.
- Arthur, J.B. 1994. Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, 37(3): 670-687.
- Baird, L. & Meshoulam, I. 1984. Strategic human resource management: Implications for training human resource professionals. *Training and Development Journal*, 38(1): 76-78.
- Baird, L. & Meshoulam, I. 1988. Managing two fits of strategic human resource management. *Academy of Management Review*, 13(1): 116-128.
- Baron, J.N., Davis-Blake, A. & Bielby, W.T. 1986. The structure of opportunity: How promotion ladders vary within and among organizations. *Administrative Science Quarterly*, 31: 248-273.
- Barney, J. 1991. Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Barney, J.B. 1995. Looking inside for competitive advantage. *Academy of Management Executive*, 9 (4): 49-61.
- Barney, J.B. & Wright, P.M. 1998. On becoming a strategic partner: The role of human resources in gaining competitive advantage. *Human Resource Management*, 37(1): 31-46.
- Bartlett, C.A. & Ghoshal, S. 1989. *Managing across borders: The transnational solution*. Boston: Harvard Business School Press.
- Becker, G.S. 1964. *Human capital*. New York: Columbia University Press.
- Becker, B.E. Huselid, M.A., Pickus, P.S., & Spratt, M.F. 1997. HR as a source of shareholder value. *Human Resource Management*, 36 (1): 39-47.
- Boudreau, J.W. & Ramstad, P.M. 1999. Human resource metrics: can measures be strategic? In G.R. Ferris (Ed.) *Research in Personnel and Human Resources Management*. 75-98. Supplement 4. London: JAI Press.
- Boxall, P. & Purcell, J. 2000. Strategic human resource management: where have we come from and where should we be going? *International Journal of Management Reviews*, 2 (2): 183-203.
- Brown, S.L. & Eisenhardt, K.M. 1997. The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Administrative Science Quarterly*, 42: 1-34.
- Brown, S.L. & Eisenhardt, K.M. 1998. *Competing on the edge: strategy as structured chaos*. Boston: Harvard Business School Press.

- Buller, P.F. 1988. Successful partnerships: HR and strategic planning at eight top firms. *Organizational Dynamics*, 17 (2): 27-44.
- Cappelli, P. 1995. Rethinking employment. *British Journal of Industrial Relations*, 33 (4): 563-602.
- Chandler, A.D. 1962. *Strategy and structure*. Cambridge: MIT Press.
- Coleman, J.S. 1988. Social capital in the creation of human capital. *American Journal of Sociology*, 94: S95-S120.
- Conner, K.R. & Prahalad, C.K. 1996. A resource-based theory of the firm: Knowledge versus opportunism. *Organization Science*, 7(5): 477-501
- Davenport, T.H. & Prusak, L. 1998. *Working knowledge: How organizations manage what they know*. Boston, MA: Harvard Business School Press.
- Day, G.S. 1997. Maintaining the competitive edge: creating and sustaining advantages in dynamic competitive environments. In G.S. Day & D.J. Reibstein (Eds) *Wharton on dynamic strategy*. New York: Wiley
- deGeus, A.P. 1988. Planning as learning. *Harvard Business Review*, March-April, 70-74.
- Delery, J. & Doty, D.H. 1996. Modes of theorizing in strategic human resource management: tests of universalistic, contingency and configurational performance predictions. *Academy of Management Journal*, 39(4): 802-835.
- Dierickx, I. & Cool, K. 1989. Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 35(12): 1504-1511.
- Dixon, N.M. 1992. Organizational learning: A review of the literature with implications for HRD professionals. *Human Resource Development Quarterly*, 3(1): 29-49.
- Dyer, L. 1983. Bringing human resources into the strategy formulation process. *Human Resource Management*, 22: 257-271.
- Edvinsson, L. & Malone, M.S. 1997. *Intellectual capital: Realizing your company's true value by finding its hidden brainpower*. New York: Harper Business.
- Ferris, G.R., Schellenberg, D.A. & Zammuto, R.F. 1984. Human resource management in declining industries. *Human Resource Management*, 23: 381-394.
- Gerhart, B. 1999. Human resource management and firm performance: measurement issues and their effect on causal and policy inferences. In G.R. Ferris (Ed.) *Research in Personnel and Human Resources Management*. 31-51. Supplement 4. London: JAI Press.
- Guest, D.E. 1987. Human resource management and industrial relations, *Journal of Management Studies*, 24(5): 503-521.
- Guest, D.E. 1999. Human resource management and performance: a review and research agenda. In R.S. Schuler & S.E. Jackson (Eds.) *Strategic human resource management*, 177-190. Oxford: Blackwell Business.

- Hamel, G. & Prahalad, C.K. 1994. *Competing for the future*. Boston: Harvard Business School.
- Harrison, J.S. & St.John, C.H. 1996. Managing and partnering with external stakeholders. *Academy of Management Executive*, 10(2): 46-60.
- Hedberg, B. 1981. How organizations learn and unlearn. In P.C. Nystrom & W.H. Starbuck, (Eds.), *Handbook of organizational design*, 8-27. London: Oxford University Press.
- Hedlund, G. 1994. A model of knowledge management and the N-form corporation. *Strategic Management Journal*, 15: 73-90.
- Hedlund, G. & Nonaka, I. 1993. Models of knowledge management in the West and Japan. In P. Lorane, B.G. Chakravarthy, J. Roos, and H. Van de Ven, (Eds.) *Implementing strategic processes, change, learning, and cooperation*, 117-144. London: Basil Blackwell.
- Herzberg, F. 1957. *Job attitudes: review of research and opinion*. Pittsburgh: Psychological Service of Pittsburgh.
- Huber, G.P. 1991. Organizational learning: The contributing processes and the literatures. *Organizational Science*, 2(1): 88-115.
- Huey, J.W., Jr. 1998. Organization man—not. *Fortune*, 137 (5): 16.
- Huselid, M.A. 1995. The impact of human resource management practices on turnover, productivity and corporate financial performance, *Academy of Management Journal*, 38: 635-670.
- Huselid, M.A., Jackson, S.E. & Schuler, R.S. 1997. The significance of human resource management implementation effectiveness for corporate financial performance. *Academy of Management Journal*, 40(1): 173-188.
- Itami, H. 1987. *Mobilizing invisible assets*. Cambridge: Harvard University Press.
- Jackson, S.E., Schuler, R. & Rivero, J.C. 1989. Organizational characteristics as predictors of personnel practices. *Personnel Psychology*, 42: 727-786.
- Kaplan, R.S. & Norton, D.P. 1996. *The balanced scorecard: translating strategy into action*, Boston: Harvard Business School Press.
- Kerr, J.L. 1985. Diversification strategies and managerial rewards: An empirical study. *Academy of Management Journal*, 28: 155-179.
- Kochan, T.A., Katz, H. and McKersie, R. 1986. *The transformation of American industrial relations*, New York: Basic Books.
- Lawrence, P.R. & Lorsch, J.W. 1967. *Organization and environment: managing differentiation and integration*. Boston: Harvard Business School Press.
- Leanna, C.R. & VanBuren, H.J, III. 1999. Organizational social capital and employment practices. *Academy of Management Review*, 24(3): 538-555.

- Lado, A.A. & Wilson, M.C. 1994. Human resource systems and sustained competitive advantage: A competency-based perspective. *Academy of Management Review*, 19(4): 699-727.
- Lengnick-Hall, C.A. & Lengnick-Hall, M.L. 1998. Strategic human resources management: A review of the literature and a proposed typology. *Academy of Management Review*, 13(3): 454-470.
- Lenz, R.T. 1980. Strategic capability: A concept and framework for analysis. *Academy of Management Review*, 13: 454-470.
- Leonard-Barton, D. 1992. The factory as a learning laboratory. *Sloan Management Review*, Fall: 23-38.
- Levitt, B. & March, J.G. 1988. Organizational learning. *Annual Review of Sociology*, 14: 319-340.
- MacDuffie, J.P. 1995. Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry. *Industrial and Labor Relations Review*, 48(2): 197-221.
- Matusik, S.F. & Hill, C.W.L. 1998. The utilization of contingent work, knowledge creation, and competitive advantage. *Academy of Management Review*, 23: 680-697.
- McGregor, H. 1960. *The human side of enterprise*. New York: McGraw-Hill.
- Miles, R.E. & Snow, C.C. 1978. *Organizational strategy, structure, and process*. New York: McGraw-Hill.
- Miles, R.E. & Snow, C.C. 1984. Designing strategic human resources systems. *Organizational Dynamics*, Summer, 36-52.
- Miles, R.E. & Snow, C.C. 1994. *Fit, failure, & the hall of fame*. New York: Free Press.
- Nonaka, I. & Takeuchi, H. 1995. *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. New York: Oxford Press.
- Milliman, J., Von Glinow, M.A., & Nathan, M. 1991. Organizational life cycles and strategic international human resource management in multinational companies: Implications for congruence theory. *Academy of Management Review*, 16: 318-339.
- Nonaka, I. 1991. The knowledge-creating company. *Harvard Business Review*, Nov-Dec: 69(6): 96-104.
- Olian, J.D. & Rynes, S.L. 1984. Organizational staffing: Integrating practice with strategy. *Industrial Relations*, 23: 170-181.
- Oliveira, M. M. 1999. Core competencies and the knowledge of the firm. In M.A. Hitt, P.G. Clifford, R.D. Nixon, and K.P. Coyne (Eds) *Dynamic strategic processes: development, diffusion and integration*. 17-41. New York: Wiley.
- Osterman, P. 1987. Choice of employment systems in internal labor markets. Industrial Relations, 26(1): 48-63.

- Peteraf, M.A. 1993. The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, 14: 179-191.
- Pfeffer, J. 1994. *Competitive advantage through people: Unleashing the power of the work force*. Boston: Harvard Business School Press.
- Polanyi, M. 1962. *Personal knowledge: Towards a post-critical philosophy*. New York: Harper Torchbooks.
- Porter, M.E. 1980. *Competitive strategy: Techniques for analyzing industries and competitors*. New York: Free Press.
- Porter, M.E. 1985. *Competitive advantage: Creating and sustaining superior performance*. New York: Free Press.
- Prahalad, C.K. 1983. Developing strategic capability: An agenda for to management. *Human Resources Management*, 22: 237-254.
- Prahalad, C.K. & Hamel, G. 1990. *The core competence of the corporation*. Harvard Business Review, May-June, 68(3): 79-91.
- Pucik, 1988. Strategic alliances, organizational learning, and competitive advantage: The HRD agenda. *Human Resource Management*, 27(1): 77-93.
- Quinn, J.B. 1992. The intelligent enterprise: A new paradigm. *Academy of Management Executive*, 6(4): 48-63.
- Reed, R. & DeFillippi, R.J. 1990. Causal ambiguity, barriers to imitation, and sustained competitive advantage. *Academy of Management Review*, 1990, 15(1): 88-102.
- Roethlisberger, F.J. & Dickson, W.J. 1939. *Management and the worker: an account of a research program conducted by the Western electric company, Hawthorne works, Chicago*. Cambridge: Harvard University Press.
- Rogers, E.W. & Wright, P.M. 1998. Measuring organizational performance in strategic human resource management: Problems, prospects, and performance information markets. *Human Resource Management Review*, 8(3), 311-331.
- Rose, R.A. 1988. Organizations as multiple cultures: A rules theory analysis. *Human Relations*, 41: 139-170.
- Rousseau, D.M. 1995. *Psychological contracts in organizations: Understanding written and unwritten agreements*. Thousand Oaks, CA: SAGE Publications
- Schneider, B. 1987. The people make the place. *Personnel Psychology*, 40(3): 437-454.
- Schuler, R.S. 1992. Linking the people with the strategic needs of the business. *Organizational Dynamics*, Summer, 18-32.
- Schuler, R.S. & Jackson, S.E. 1987. Linking competitive strategies with human resource practices. *Academy of Management Executive*, 1, 207-219.

- Schuler, R.S. & MacMillan, I. 1984. Gaining competitive advantage through human resource practices. *Human Resource Management*, 23, 241-256.
- Snell, S.A. 1992. Control theory in strategic human resource management: The mediating effect of administrative information. *Academy of Management Journal*, 35, 292-327.
- Snell, S.A. & Dean, J.W. 1992. Integrated manufacturing and human resource management: A human capital perspective. *Academy of Management Journal*, 35(3): 467-504.
- Snell, S.A., Lepak, D.P. & Youndt, M.A. 1999. Managing the architecture of intellectual capital: implications for strategic human resource management. In G.R. Ferris (Ed.) *Research in Personnel and Human Resources Management*. 175-193. Supplement 4. London: JAI Press.
- Snell, S.A., Pedigo, P.R. & Krawiec, G.M. 1995. In G.R. Ferris, S.D. Rosen, and D.T. Barnum (Eds.) *Handbook of Human Resources Management*. Oxford, UK: Blackwell Publishers.
- Snell, S.A., & Youndt, M.A. 1995. Human resource management and firm performance: Testing a contingency model of executive controls. *Journal of Management*, 21(4): 711-737.
- Snow, C.C. & Hrebiniak, L.G. 1980. Strategy, distinctive competence, and organizational performance. *Administrative Science Quarterly*, 25, 317-336.
- Snow, C.C. & Snell, S.A. 1993. Staffing as strategy. In N. Schmitt, W.C. Borman, and Associates (Eds.) *Personnel selection in organizations*. San Francisco: Jossey-Bass.
- Spencer, K.I. 1983. Deciphering prometheus: Temporal change in the skill level of work. *American Sociological Review*, 48, 824-837.
- Stata, R. 1989. Organizational learning - The key to management innovation. *Sloan Management Review*, Spring, 63-74.
- Stewart, T.A. 1991. Brain power. *Fortune*, June 3, pp. 44-60.
- Stewart, T.A. 1994. Your company's most valuable asset: Intellectual capital. *Fortune*, October 3, 68-74.
- Sveiby, K.E. 1997. *The new organizational wealth: managing and measuring knowledge-based assets*. San Francisco: Berrett-Koehler.
- Teece, D., Pisano, G. & Shuen, A. 1997. Dynamic capabilities and strategic management. *Strategic Management Journal*, 18: 509-533.
- Tichy, N.M., Fombrun, C.J. & DeVanna, M.A. 1982. Strategic human resource management. *Sloan Management Review*, 23, 47-61.
- Trist, E. L. 1963. *Organizational choice: capabilities of groups at the coal face under changing technologies: The loss, re-discovery & transformation of a work tradition*. London: Tavistock Publications.
- Tsui, A.S., Pearce, J.L., Porter, L.W., & Hite, J.P. 1995. Choice of employee-organization relationship: Influence of external and internal organizational factors. In G.R. Ferris (ed.), *Research in Personnel and Human Resources Management*, (pp. 117-151), Greenwich, CT: JAI Press.

Ulrich, D. 1997. Measuring human resources: an overview of practice and a prescription for results. *Human Resource Management*, 36(3): 303-320.

Ulrich, D. 1991. Using human resources for competitive advantage. In R. Kilmann, I. Kilmann, and Associates (Eds.) *Making organizations competitive*. San Francisco: Jossey-Bass.

Ulrich, D. & Lake, D. 1991. Organizational capability: Creating competitive advantage. *Academy of Management Executive*, 5(1), 77-92.

Wernerfelt, B. 1984. A resource-based view of the firm. *Strategic Management Journal*, 5: 171-180.

Wright, P.M. & McMahan, G.C. 1992. Theoretical perspectives for strategic human resource management. *Journal of Management*, 18(2), 295-320.

Wright, P.M., McMahan, G.C. & McWilliams, A. 1994. Human resources and sustained competitive advantage: A resource-based perspective. *International Journal of Human Resource Management*, 5(2), 301-326.

Wright, P.M., Smart, D., & McMahan, G.C. 1995. On the integration of strategy and human resources: An investigation of the match between human resources and strategy among NCAA basketball teams. *Academy of Management Journal*, 38: 1052-1074.

Wright, P.M. & Snell, S.A. 1991. Toward an integrative view of strategic human resource management. *Human Resource Management Review*, 1, 203-225.

Youndt, M.A., Snell, S.A. Dean, J.W., Jr. & Lepak, D.P. 1996. Human resource management, manufacturing strategy, and firm performance. *Academy of Management Journal*, Special Issue, 39(4): 836-866.